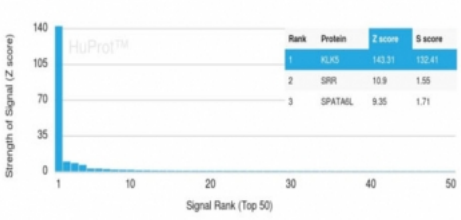
Kallikrein 5 Antibody KLK5/3844 / KLK5 Mouse MAb [clone KLK5/3844] (V4636)

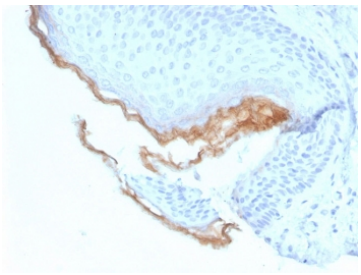
Catalog No.	Formulation	Size
V4636-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4636-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4636SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

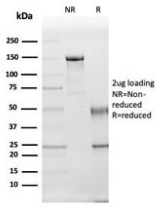
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	KLK5/3844
Purity	Protein A/G affinity
UniProt	Q9Y337
Localization	Secreted
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This Kallikrein 5 Antibody KLK5/3844 is available for research use only.



Analysis of a HuProt(TM) microarray containing more than 19,000 full-length human proteins using Kallikrein 5 Antibody KLK5/3844 Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a mAb to its intended target. A mAb is considered to specific to its intended target, if the mAb has an S-score of at least 2.5. For example, if a mAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that mAb to protein X is equal to 29.



Kallikrein 5 Antibody KLK5/3844 Cutaneous Epithelium IHC. Immunohistochemistry staining of FFPE human skin tissue with Kallikrein 5 antibody (clone KLK5/3844). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free Kallikrein 5 antibody (clone KLK5/3844) as confirmation of integrity and purity.

Description

Kallikrein 5 Antibody KLK5/3844 / KLK5 Mouse MAb recognizes kallikrein-related peptidase 5 (KLK5), a secreted serine protease involved in epidermal differentiation, skin barrier maintenance, and extracellular protein processing. KLK5 belongs to the human tissue kallikrein family, which comprises 15 closely related serine proteases encoded by genes clustered on chromosome 19q13. KLK5 is also known as stratum corneum tryptic enzyme (SCTE) and is particularly important in regulating proteolytic activity within the outermost layers of the epidermis.

KLK5 is synthesized as an inactive precursor that undergoes proteolytic processing to generate an active enzyme. Within the stratum corneum, KLK5 contributes to desquamation by cleaving proteins involved in corneocyte adhesion, including components of corneodesmosomes. Its activity is regulated by local pH, protease inhibitors, and interactions with other epidermal kallikreins. KLK5 can also activate additional proteases, including KLK7 and KLK14, creating a coordinated proteolytic network that supports normal epidermal renewal and barrier function.

Dysregulated KLK5 activity has been implicated in inflammatory skin disorders, particularly Netherton syndrome, which results from mutations in the SPINK5 gene encoding the serine protease inhibitor LEKTI. Loss of effective KLK5 inhibition promotes excessive proteolysis, impaired epidermal barrier integrity, and inflammatory signaling. KLK5 can also activate protease-activated receptor 2 (PAR2), linking extracellular proteolytic activity to keratinocyte responses and inflammatory pathways. Altered KLK5 expression has additionally been investigated in several malignancies, where its proteolytic functions may influence extracellular matrix remodeling and tumor-associated signaling.

KLK5 expression is particularly relevant in epidermal tissues, although the protein is also found in other epithelial and glandular environments. Its extracellular localization and regulated enzymatic activity make it an important component of epithelial homeostasis. The Kallikrein 5 Antibody enables investigation of KLK5 distribution in human tissues, while the KLK5 Mouse MAb provides a monoclonal reagent for examining epithelial protease expression. NSJ Bioreagents offers this protein microarray-validated antibody to support research into epidermal differentiation, barrier-associated proteolysis, and KLK5-related inflammatory processes.

For highly specific detection of KLK5-associated epithelial barrier signaling pathways, see our Kallikrein 5 Antibody / Epidermal Barrier Protease Antibody page featuring clone KLK5/3841 with IHC and HuProt(TM) microarray specificity validation data.

Application Notes

Optimal dilution of the Kallikrein 5 Antibody KLK5/3844 should be determined by the researcher.

Immunogen

A recombinant fragment of human KLK5 protein (within amino acids 36-177) was used as the immunogen for the Kallikrein 5 Antibody KLK5/3844.

Storage

Aliquot the Kallikrein 5 Antibody KLK5/3844 and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

KLK5 antibody, Kallikrein related peptidase 5 antibody, Kallikrein-like protein 2 antibody, KLK-L2 antibody, KLKL2 antibody, Stratum corneum tryptic enzyme antibody, SCTE antibody

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